ATCA setup as follows:

DAS profile: 64MHz_f.pro on both DAS.

CA04 is at 7mm (it has the best noise diode for the 7mm frequency of 43532 MHz).

CA01,2,3,5 are at 3mm.

CABB IF1 is 7mm, IF2 is 3mm.

The tied array for IF1 is CA04 only, and for IF2 is CA02 only. Both tied arrays are linear polarisations.

The reference antenna is CA04 on W104.

IF1 is being recorded to the Xcube data disk /data. IF2 is being recorded onto the local disk ATNF V004B on cavsi2.

The ATCA CABB data is being recorded as project C2997.

Recording was started at 09:30:00 UTC, but the first time on main schedule is at 09:40:10 UTC.

Shortly before the beginning of the experiment I did a pointing on 3C273 at 7mm. Other pointing scans were performed at (all times show when the main schedule was stopped to the time when it was back on source on main schedule):

11:08:40 - 11:24:20, on 1252+119.

12:41:00 - 12:56:00, on 1252+119.

14:24:00 - 14:33:20, on M87.

15:50:00 - 15:59:20, on M87.

Condition reports:

09:40, start of main schedule.

The weather isn't too bad - the sky is clear and the seeing is down at about 120 microns. I still could barely see 1253-055 at 3mm on any baseline, but this might be because the elevation was below 20 degrees during setup. The phase on the shortest 3mm baseline CA02-CA03 is not very stable, so we're starting with CA02 only in the tied array.

11:20, doing pcal at 3mm.

The phase over 3 minutes on CA02-CA03 baseline varied from +70 down to -60 and then back to +30 degrees, even though the RMS path length difference from the seeing monitor has recently been as low as 60 microns (it's just jumped back up to over 200). So we keep only CA02 in the tied array for 3mm.

12:50, doing pcal at 3mm.

The phase stability has not improved, and the seeing monitor has stayed around 200 microns. I just can't see how adding more antennas into the 3mm tied array will help the sensitivity, so we're going to stick with just CA02.

14:30:

The temperature picked up shortly after the last report, as a hot wind started blowing from the North, and this has made the phase stability even worse. The temperature has very recently started coming back down, but it hasn't even come back down to where it was before the wind came. The raw numbers from the seeing monitor are still only around 150 microns, but they change rapidly. No change in the tied array.

16:00:

Phase stability has improved a little since the last update, but not by enough that I would consider adding another antenna to the 3mm tied array.